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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,826	09/25/2003	Barry L. Minor	AUS920030790US1	7316
40412 7590 08/02/2007 IBM CORPORATION- AUSTIN (JVL) C/O VAN LEEUWEN & VAN LEEUWEN PO BOX 90609 AUSTIN, TX 78709-0609			EXAMINER TRUONG, CAMQUY	
			ART UNIT 2195	PAPER NUMBER
			MAIL DATE 08/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/670,826

Applicant(s)

MINOR ET AL.

Examiner

Camquy Truong

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: ____. |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :9/25/03, 11/11/05, 5/16/06, 8/5/06, 9/19/06, 10/15/06, 1/4/07, 3/29/07, 5/20/07, 7/16/07.

DETAILED ACTION

1. Claims 1-20 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-7, 14-17, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ansari et al. (U.S. Patent 6,473,897) in view of Kempf et al. (U.S. Patent 5,359,721).

4. As to claims 1, 14, Ansari teaches a method for load balancing code execution, said method comprising:

identifying a processor from a plurality of processor types to execute the code segment (col. 13, lines 13-16, lines 30-33); and

loading the code segment into a processor that corresponds to the identified processor (col. 13, lines 15-20, and lines 33-38).

5. Ansari does not explicitly teach retrieving a code segment from a plurality of code segments. However, Kempf teaches retrieving a code segment from a plurality of code segments (col. 7, lines 44; col. 8, lines 34-38).

6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of retrieving a code segment from a plurality of code segments as taught by Kempf to the invention of Ansari because this allows a process executing in non-supervisor mode to perform dynamic linking across address spaces with the program code without compromising system security.

7. As to claims 2, and 15, Ansari teaches the code segment is byte code (col. 6, lines 1-2).

8. As to claims 3, and 16, Ansari teaches the byte code includes a byte code type, the byte code type selected from the group consisting of Java, XML, HTML, Shader, and Script (col. 15, lines 1-5).

9. As to claims 4, and 17, Ansari teaches compiling source code, the compiling resulting in the byte code (col. 4, line 62 – col. 5, line 3).

Kempf teaches:

determining whether to store a pointer in a byte code file, the pointer including a stored location that corresponds to the byte code (col. 7, lines 26-28);

storing the pointer in the byte code file in response to the determination; storing the byte code at the stored location in response to the determination (col. 8, lines 31-56); and

performing the retrieving using the pointer, wherein the retrieving includes analyzing the stored location and retrieving the byte code in response to the analyzing (col. 3, lines 14-22).

10. As to claims 6-7, and 19-20, Ansari teaches:

detecting one or more operations included in the code segment (col. 5, lines 15-22; col. 6, lines 10-19); and

matching one or more of the operations with one of the processor types from the plurality of processor types (col. 5, lines 23-32; col. 6, lines 20-31).

11. Claims 5, 8-13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ansari et al. (U.S. Patent 6,473,897) in view of Kempf et al. (U.S. Patent 5,359,721) and further in view of Jacobson (U.S. Patent Application Publication 2003/0188045).

12. As to claim 8, Ansari teaches a method for load balancing code execution, said method comprising:

a plurality of processors (col. 5, lines 15-32);

a memory accessible by the processors (col. 9, lines 12-33; col. 10, lines 42-50);

identifying a processor from a plurality of processor types to execute the code segment (col. 13, lines 13-16, lines 30-33); and

loading the code segment into a processor that corresponds to the identified processor (col. 13, lines 15-20, and lines 33-38).

13. Ansari does not explicitly teach retrieving a code segment from a plurality of code segments. However, Kempf teaches retrieving a code segment from a plurality of code segments (col. 7, lines 44; col. 8, lines 34-38).

14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of retrieving a code segment from a plurality of code segments as taught by Kempf to the invention of Ansari because this allows a process executing in non-supervisor mode to perform dynamic linking across address spaces with the program code without compromising system security.

15. Ansari and Kempf do not explicitly teach a code execution load-balancing tool for load balancing code execution, the code execution load-balancing tool. However, Jacobson teaches a code execution load-balancing tool for load balancing code execution, the code execution load-balancing tool (paragraph 6, lines 13-15; paragraph 7, lines 1-4; paragraph 29, lines 3-7).

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16. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of code execution load-balancing tool for load balancing code execution, the code execution load-balancing tool as taught by Jacobson to the invention of Ansari and Kempf because this allows to balance workload tasks among multiple processors to fully utilize the resources associated with each processor.

17. As to claim 9, Ansari teaches the code segment is byte code (col. 6, lines 1-2).

18. As to claim 10, Ansari teaches the byte code includes a byte code type, the byte code type selected from the group consisting of Java, XML, HTML, Shader, and Script (col. 15, lines 1-5).

19. As to claim 11, Ansari teaches compiling source code, the compiling resulting in the byte code (col. 4, line 62 – col. 5, line 3).

Kempf teaches:

determining whether to store a pointer in a byte code file, the pointer including a stored location that corresponds to the byte code (col. 7, lines 26-28);

storing the pointer in the byte code file in response to the determination; storing the byte code at the stored location in response to the determination (col. 8, lines 31-56); and

performing the retrieving using the pointer, wherein the retrieving includes analyzing the stored location and retrieving the byte code in response to the analyzing (col. 3, lines 14-22).

20. As to claims 12-13, Ansari teaches:

detecting one or more operations included in the code segment (col. 5, lines 15-22; col. 6, lines 10-19); and

matching one or more of the operations with one of the processor types from the plurality of processor types (col. 5, lines 23-32; col. 6, lines 20-31).

21. As to claims 5, and 18, Jacobson teaches the identifying includes analyzing the availability of each of the plurality of processor types, and wherein the analyzing includes retrieving a loading factor for each of the plurality of processor types (paragraph 29-30).

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (571) 272-3773. The examiner can normally be reached on 8AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Camquy Truong

July 5, 2007


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